

AWARD/CONTRACT		1. This Contract Is A Rated Order Under DPAS (15 CFR 700)		Rating DOA4		Page 1 Of 27	
2. Contract (Proc. Inst. Ident) No. W56HZV-04-C-0013		3. Effective Date 2003DEC02		4. Requisition/Purchase Request/Project No. SEE SCHEDULE			
5. Issued By TACOM WARREN BLDG 231 AMSTA-AQ-ABGA JEFFREY BEAN (586)574-7860 WARREN, MICHIGAN 48397-5000 HTTP://CONTRACTING.TACOM.ARMY.MIL e-mail address: BEANJ@TACOM.ARMY.MIL		Code W56HZV		6. Administered By (If Other Than Item 5) DCMA PHILADELPHIA 700 ROBBINS AVENUE, BLDG 4-A P.O. BOX 11427 PHILADELPHIA, PA 19111-0427		Code S3915A	
				SCD C PAS NONE ADP PT HQ0337			
7. Name And Address Of Contractor (No. Street, City, County, State, And Zip Code) MISTRAS HOLDINGS CORPORATION 195 CLARKSVILLE ROAD PRINCETON JUNCTION, NJ. 08550-5303 TYPE BUSINESS: Other Small Business Performing in U.S.				8. Delivery <input type="checkbox"/> FOB Origin <input checked="" type="checkbox"/> Other (See Below) SEE SCHEDULE			
				9. Discount For Prompt Payment			
				10. Submit Invoices (4 Copies Unless Otherwise Specified)		Item 12	
Code 59041 Facility Code				To The Address Shown In:			
11. Ship To/Mark For SEE SCHEDULE		Code		12. Payment Will Be Made By DFAS - COLUMBUS CENTER DFAS-CO/NORTH ENTITLEMENT OPERATION P.O. BOX 182266 COLUMBUS OH 43218-2266		Code HQ0337	
13. Authority For Using Other Than Full And Open Competition: <input type="checkbox"/> 10 U.S.C. 2304(c)() <input type="checkbox"/> 41 U.S.C. 253(c)()				14. Accounting And Appropriation Data ACRN: AA 21 42040000046N6N7EP665502255Y S20113 W56HZV			
15A. Item No. SEE SCHEDULE		15B. Schedule Of Supplies/Services CONTRACT TYPE: Cost-Plus-Fixed-Fee		15C. Quantity		15D. Unit	
				15E. Unit Price		15F. Amount	
				KIND OF CONTRACT: Research and Development Contracts			
15G. Total Amount Of Contract						\$369,995.00	
16. Table Of Contents							
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X	B	Supplies or Services and Prices/Costs	3	Part III - List Of Documents, Exhibits, And Other Attachments			
X	C	Description/Specs./Work Statement	9	X	J	List of Attachments	27
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X	E	Inspection and Acceptance	13		K	Representations, Certifications, and Other Statements of Offerors	
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Contracting Officer Will Complete Item 17 Or 18 As Applicable							
17. <input type="checkbox"/> Contractor's Negotiated Agreement (Contractor is required to sign this document and return _____ copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)				18. <input checked="" type="checkbox"/> Award (Contractor is not required to sign this document.) Your offer on Solicitation Number _____ including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your offer, and (b) this award/contract. No further contractual document is necessary.			
19A. Name And Title Of Signer (Type Or Print)				20A. Name Of Contracting Officer DEREK MCALEER MCALEERD@TACOM.ARMY.MIL (586)574-7197			
19B. Name of Contractor By _____ (Signature of person authorized to sign)		19c. Date Signed		20B. United States Of America By _____ /SIGNED/ (Signature of Contracting Officer)		20C. Date Signed 2003DEC02	
NSN 7540-01-152-8069 PREVIOUS EDITIONS UNUSABLE				25-106 GPO : 1985 0 - 478-632		Standard Form 26 (Rev. 4-85) Prescribed By GSA-FAR (4.8 CFR) 53.214(a)	

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SECTION A - SUPPLEMENTAL INFORMATION

	<u>Regulatory Cite</u>	<u>Title</u>	<u>Date</u>
A-1	52.204-4016 (TACOM)	TACOM-WARREN ELECTRONIC CONTRACTING	JUL/2003
<p>(a) TACOM is now operating in an electronic contracting environment. All TACOM solicitations and awards are now distributed on the TACOM Warren Business Opportunities web page (http://contracting.tacom.army.mil/opportunity.htm) and are no longer available in hard copy. The TDPs and other documents, when available electronically, will be an attachment or linked to the solicitation package on the web. Please see submission guidelines at http://contracting.tacom.army.mil/userguide.htm and http://contracting.tacom.army.mil/ebidnotice.htm for more information. Any requirements included in the solicitation take precedence over guidance found on the TACOM contracting web page.</p> <p>(b) You may need to use special software to view documents that we post on the home page. This viewing software is freeware, available for download at no cost from commercial web sites like Microsoft and Adobe. In cases where such software is required, we provide a link from our page to the commercial site where the software is available. Once you arrive at the software developer's site, follow their instructions to download the free viewer. You then can return to the TACOM home page.</p> <p>(c) You are required to submit your offer, bid, or quote electronically. See the provision entitled "Electronic Offers (or 'Quotes' or 'Bids') Required in Response to This Solicitation (or 'Request for Quotations')" for more specific information.</p> <p>(d) Any award issued as a result of this solicitation will be distributed electronically. Awards posted on the TACOM Warren Business Opportunities web page represent complete OFFICIAL copies of contract awards and will include the awarded unit price. This is the notice required by Executive Order 12600 (June 23, 1987) of our intention to release unit prices in response to any request under the Freedom of Information Act (FOIA), 5 USC 552. Unit price is defined as the contract price per unit or item purchased as it appears in Section B of the contract and is NOT referring to nor does it include Cost or Pricing data/information. If you object to such release, and you intend on submitting an offer, notify the PCO in writing prior to the closing date identified in this solicitation and include the rationale for your objection consistent with the provisions of FOIA. A release determination will be made based on rationale given.</p> <p>(e) If you have questions or need help in using the Acquisition Center Home Page, call our Electronic Contracting Help Desk at (586) 574-7059, or send an email message to: acqcenweb@tacom.army.mil</p> <p>(f) If you have questions about the content of any specific item posted on our home page, please call the buyer or point of contact listed for the item. Additional help is available to small businesses from Government-funded Electronic Commerce Regional Centers (ECRCs) to implement EDI. Information on ECRC is available at http://www.ecrc.ctc.com</p>			

[End of Clause]

A-2	52.204-4232 (TACOM)	PUBLIC ACTIVITY INVOLVEMENT	DEC/2002
<p>Subcontract opportunities under this solicitation and any resulting contracts are open to competition between Department of Defense activities and private firms. In addition, Army Industrial Facilities are available to sell manufactured articles or to perform work at such Facilities on behalf of Offerors, in certain circumstances and as permitted by law. Rock Island Arsenal, Watervliet Arsenal, Anniston Army Depot, Sierra Army Depot, and Red River Army Depot have expressed interest in securing subcontracting opportunities under this RFP. For information related to the capabilities of these facilities, and Points of Contact, see www.gsie.army.mil</p>			

[End of Notice]

A-1 Purpose:

The purpose of this contract is to provide for Mistras Holdings, doing business as Physical Acoustics Corporation of Princeton, NJ to perform a research and development program on behalf of the United States Army Tank-automotive and Armaments Command of Warren, Michigan.

This is a Phase II award under the Army's Small Business Innovative Research (SBIR) program. It is a follow-on to contract DAAE07-03-C-L046, awarded 31 DEC 20021 FEB 2002 to Physical Acoustics Corporation.

*** END OF NARRATIVE A 001 ***

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT												
0001	<p>SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS</p> <p><u>RESEARCH AND DEVELOPMENT SERVICES</u></p> <p>NOUN: R&D SERVICES AND INSPECTION S SECURITY CLASS: Unclassified</p> <p>The total negotiated cost of this contract is as follows:</p> <p>estimated cost: \$662,518 fixed fee: \$66,252 total: \$728,770</p> <p>This contract shall be funded in two increments. See section B.3 narrative for additional information on incremental funding.</p> <p>(End of narrative B001)</p> <p><u>Inspection and Acceptance</u> INSPECTION: Destination ACCEPTANCE: Destination</p> <p><u>Deliveries or Performance</u></p> <table><tr><td>DLVR SCH</td><td></td><td>PERF COMPL</td></tr><tr><td><u>REL CD</u></td><td><u>QUANTITY</u></td><td><u>DATE</u></td></tr><tr><td>001</td><td>1</td><td>02-DEC-2005</td></tr><tr><td></td><td>\$ 369,995.00</td><td></td></tr></table>	DLVR SCH		PERF COMPL	<u>REL CD</u>	<u>QUANTITY</u>	<u>DATE</u>	001	1	02-DEC-2005		\$ 369,995.00		1	LO		\$ 369,995.00
DLVR SCH		PERF COMPL															
<u>REL CD</u>	<u>QUANTITY</u>	<u>DATE</u>															
001	1	02-DEC-2005															
	\$ 369,995.00																
000101	<p><u>RESEARCH AND DEVELOPMENT SERVICES</u></p> <p>NOUN: FY04 PHII SBIR PHYSICAL ACOU PRON: E142C008EH PRON AMD: 01 ACRN: AA AMS CD: 665502M4055</p> <p>This is to fund the first year work effort as follows:</p> <p>estimated cost: \$336,359 fixed fee: \$33,636 total: \$369,995</p> <p>(End of narrative B001)</p> <p>(AMOUNT: \$ 369,995.00)</p>																
0002	<p><u>DATA ITEMS</u></p>																

Name of Offeror or Contractor: MISTRAS HOLDINGS CORPORATION

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
A001	<p>SECURITY CLASS: Unclassified</p> <p><u>QUARTERLY REPORTS</u></p> <p>SECURITY CLASS: Unclassified</p> <p>The Contractor shall deliver quarterly Contractor Progress Status and Management reports as described in data item A001 of the Contract Data Requirements List (DD 1423, exhibit A). The first report shall be due ninety days after contract award. Reference section C.5.1.1.</p> <p>(End of narrative B001)</p> <p><u>Inspection and Acceptance</u> INSPECTION: DestinationACCEPTANCE: Destination</p>		EA	\$ ** NSP **	\$ ** NSP **
A002	<p><u>FINAL REPORT</u></p> <p>SECURITY CLASS: Unclassified</p> <p>The Contractor shall deliver draft and final Scientific and Technical Reports per data item A002 of of the Contract Data Requirements List (DD 1423, exhibit A).Reference section C.5.1.2.</p> <p>(End of narrative B001)</p> <p><u>Packaging and Marking</u></p> <p><u>Inspection and Acceptance</u> INSPECTION: DestinationACCEPTANCE: Destination</p> <p><u>Deliveries or Performance</u> DOC SUPPL <u>REL CD</u> <u>MILSTRIP</u> <u>ADDR</u> <u>SIG CD</u> <u>MARK FOR</u> <u>TP CD</u> 001 3 <u>DEL REL CD</u> <u>QUANTITY</u> <u>DEL DATE</u> 001 1 SEE DD FORM 1423</p> <p>FOB POINT: Destination</p> <p>SHIP TO: <u>PARCEL POST ADDRESS</u> (Y00003) SEE NARRATIVE ON DD 1423</p>	1	EA	\$ ** NSP **	\$ ** NSP **

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Name of Offeror or Contractor: MISTRAS HOLDINGS CORPORATION

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
A003	<p><u>SOFTWARE</u></p> <p>SECURITY CLASS: Unclassified</p> <p>The Contractor shall deliver software per data item A003 of of the Contract Data Requirements List (DD 1423, exhibit A).Reference section C.5.1.3.</p> <p>(End of narrative B002)</p> <p><u>Packaging and Marking</u></p> <p><u>Inspection and Acceptance</u> INSPECTION: Destination ACCEPTANCE: Destination</p> <p><u>Deliveries or Performance</u> DOC SUPPL REL CD MILSTRIP ADDR SIG CD MARK FOR TP CD 001 3 DEL REL CD QUANTITY DEL DATE 001 1 SEE DD FORM 1423</p> <p>FOB POINT: Destination</p> <p>SHIP TO: <u>PARCEL POST ADDRESS</u> (Y00003) SEE NARRATIVE ON DD 1423</p>	1	EA	\$ ** NSP **	\$ ** NSP **
A004	<p><u>PRESENTATION MATERIALS</u></p> <p>SECURITY CLASS: Unclassified</p> <p>The Contractor shall deliver presentation materials per data item A004 of of the Contract Data Requirements List (DD 1423, exhibit A).Reference section C.5.1.4.</p> <p>(End of narrative B003)</p>	2	EA	\$ ** NSP **	\$ ** NSP **

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Name of Offeror or Contractor: MISTRAS HOLDINGS CORPORATION

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	<p><u>Packaging and Marking</u></p> <p><u>Inspection and Acceptance</u> INSPECTION: Destination ACCEPTANCE: Destination</p> <p><u>Deliveries or Performance</u> DOC SUPPL REL CD MILSTRIP ADDR SIG CD MARK FOR TP CD 001 3 DEL REL CD QUANTITY DEL DATE 001 2 SEE DD FORM 1423</p> <p>FOB POINT: Destination</p> <p>SHIP TO: <u>PARCEL POST ADDRESS</u> (Y00003) SEE NARRATIVE ON DD 1423</p>				
0003	<p><u>PROTOTYPE INSPECTION SYSTEM</u></p> <p>SECURITY CLASS: Unclassified</p> <p>The Contractor shall deliver to the Government a complete non-destructive inspection system for MMC inserts and track shoes. Reference C.5.2.</p> <p>(End of narrative B001)</p> <p><u>Packaging and Marking</u></p> <p><u>Inspection and Acceptance</u> INSPECTION: Destination ACCEPTANCE: Destination</p> <p><u>Deliveries or Performance</u> DOC SUPPL REL CD MILSTRIP ADDR SIG CD MARK FOR TP CD 001 3 DEL REL CD QUANTITY DEL DATE 001 1 02-DEC-2005</p> <p>FOB POINT: Destination</p>	1	EA	\$ ** NSP **	\$ ** NSP **

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B.1 ESTIMATED COST AND PAYMENT

B.1.1 The total negotiated estimated cost for performance of the work required under this contract is \$ 728,770 and this amount shall constitute the estimated cost for the purpose of the Contract Clause in Section I entitled "Limitation of Funds" (FAR 52.232-22).

B.1.2 The contractor will be paid for the fixed fee stated in Section B opposite CLIN 0001 for the performance of work under the contract and in accordance with the terms of the Contract Clause in Section I entitled "Fixed Fee" (FAR 52.216-8). The fixed fee together with the reimbursement of cost shall constitute full and complete consideration for the contractor's service in connection with the work required and performed under this contract.

B.1.3 Allowable cost shall be determined, and payment thereof shall be provided, in accordance with the Contract Clause in Section I entitled "Allowable Cost and Payment" (FAR 52.216-7). See also 'PAYMENT' in Section G.

B.2 PAYMENT

B.2.1 The contractor may submit public vouchers biweekly for payment under this contract. The fee will be payable at the time of reimbursement of cost at the same rate to such cost as the total fee of this contract bears to the total estimated cost thereof, subject to any withholding pursuant to provisions of this contract.

B.3 FUNDING

B.3.1 The Government shall provide funds under this contract covering the estimated cost and fee hereof on an incremental basis as provided for in the following funding schedule and pursuant to the Contract Clause in Section I entitled "Limitation of Funds" (FAR 52.232-22). It is estimated that the incremental amounts are sufficient for the performance of work in each of the cited periods. The Government may, at its discretion, obligate such funds on an incremental basis within each fiscal year. The contractor shall so plan and execute the work required by this contract as to expend and/or commit funds compatible with the schedule set forth below. Whenever the contractor has reason to believe that the funds obligated to this contract for any fiscal year are either insufficient or excessive for the performance of work required in that fiscal year, the Government shall be so notified.

B.3.2 FUNDING SCHEDULE

<u>Performance Period</u>	<u>Amount</u>
FY 2004 - 3 DEC 2003 through 2 DEC 2004	\$ 369,995
FY 2005 - 3 DEC 2004 through 2 DEC 2005	\$ 358,775

B.4 FUNDS OBLIGATED

The amount of funds currently obligated on this contract is \$369,995.

*** END OF NARRATIVE B 001 ***

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SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.1 Purpose

The Contractor, acting as an independent contractor and not as an agent of the Government, shall provide the necessary facilities, materials, personnel, equipment, and services to accomplish the tasks set forth in this contract. The purpose of this contract is to develop a prototype inspection system to nondestructively detect and assess the severity of porosity and cracks in silicon carbide reinforced aluminum metal matrix (SiC/AL MMC) wear inserts incorporated in cast aluminum tank track shoes. This prototype system shall also be capable of detecting the presence of debonds between the SiC/AL and aluminum matrix.

C.2 Inspection and assessment of sample defects:

C.2.1 Procurement of test samples: The Contractor shall procure silicon carbide reinforced aluminum metal matrix casting (SiC/AL MMC) samples and cast aluminum tank track shoes. The samples shall contain defects of known type and severity, and shall include controlled levels of porosity volume fraction, cracks and debonds. The Contractor shall also obtain samples with no defects to be used for comparison purposes.

C.2.2 Inspection of test samples: The Contractor shall inspect the samples procured in item C.2.1 by nondestructive inspection techniques to detect debonds, cracks and porosity levels. Base line values shall be established through inspection of sample inserts and track shoes having no defects.

C.2.3. Establishment of acceptance/rejection criteria: The Contractor shall conduct an analysis of the inspection data derived in section C.2.2 in order to establish defect assessment parameters. The Contractor shall develop pass/fail criteria for silicon carbide reinforced aluminum metal matrix (SiC/AL MMC) samples and cast aluminum tank track shoes. These pass-fail criteria shall quantitatively establish the maximum acceptable presence of porosity, cracks, and debonds that may be tolerated in MMC track shoes intended for normal field use by Army combat vehicles.

C.3 Prototype Inspection System Development. The Contractor shall build a nondestructive inspection system having the following characteristics:

C.3.1 Operating requirements. The prototype inspection system shall perform inspections using ultrasonic and eddy current techniques. It shall be capable of detecting and distinguishing between porosity, debonds, and cracks in SiC/Al inserts. The system shall be capable of inspecting both loose inserts, and inserts that are incorporated into track shoes.

C.3.2 Physical characteristics. The prototype inspection shall have the following physical characterestics and design features:

C.3.2.1 System construction and housing: The processing system enclosure will house the system processing and display electronics, computer system and computer boards. This enclosure will be modular, portable, and lightweight, so that the system can be easily and quickly assembled, disassembled, transported, and reassembled, allowing easy movement between inspection sites.

C.3.2.2 Mechanical scanner: The prototype inspection system shall include a mechanical scanner in the form of a fixture which will position the sensor probe assembly over the sample inserts and tank track shoes. The mechanical scanner will maintain a constant relative orientation between the sensor probe assembly and the sample insert or track shoe. The mechanical scanner will be computer controlled in order to produce a high quality ultrasonic and eddy current C-scan images. The material of the mechanical scanner will be light, corrosion resistant aluminum. The motor drives will have belts with minimum backlash.

C.3.2.3 Sensors: The sensor probe assembly will house a maximum of four (4) sensors, two ultrasonic sensor and two eddy current. The final configuration of the sensor will be determined based on inspections results of MMC samples and cast aluminum tank track shoes. The eddy current sensors may be either single- or differential coil, to be excited by a proper multi-frequency signal. The access to the surface of samples and tank track shoes, space available for scanning and the maximum speed of scanning will determine the final configuration of the ultrasonic and eddy current sensors. The eddy current probe shall be operated by a PCI board.

C.3.3 Prototype inspection system software and controls:

The prototype inspection system software shall control the operation of the prototype system, and shall provide automated analysis of inspection data. The software shall include the following features and functions:

C.3.3.1 User interface:

C.3.3.1.1 The system display shall provide a simple graphical user interface.

C.3.3.1.2 The system shall provide simple control of mechanical scanning operations.

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C.3.3.1.3 The system shall include controls to setup and operate the PCI eddy current board.

C.3.3.1.4 Display options: The system shall provide A-scan display of waveforms, allowing simple setup of alarm levels and other setup parameters. It shall also allow the simultaneous display of ultrasonic and eddy current C-scans.

C.3.3.1.5 The system shall have the capability to save/recall experimental setups.

C.3.3.2 Data collection: The system shall provide a "save" option that shall store collected inspection data to a file, for later review and analysis.

C.3.3.3 Assessment and analysis features:

C.3.3.3.1 The system shall include analysis functions to identify, characterize, and discriminate between porosity, debonds, and cracks.

C.3.3.3.2 The system shall include build-in assessment tools, alarms, and pass/fail criteria. The system shall signal the acceptance or failure of each sample, without requiring any analytical skill or decision making on the part of the operator.

C.4 Prototype Inspection System Field Demonstration:

At the time of the final program review meeting, the Contractor shall demonstrate the prototype inspection system. The demonstration shall cover all facets of the system's operation and capabilities. It shall include how to create and save set-ups, how to perform inspections, and how to save and recall experimental data. The Contractor shall demonstrate how the system can detect and distinguish between porosity, debonds and cracks. The Contractor shall provide all sample track shoes and inserts necessary to accomplish the demonstration.

C.5 Deliverables:

C.5.1 Data items: In accordance with the Contract Data Requirements List (CDRL), Exhibit A, the Contractor shall deliver the following:

C.5.1.1 Quarterly reports: The Contractor shall prepare and submit quarterly status reports in accordance with CDRL item A001. The status reports shall summarize the work completed, the contract tasks not completed and significant accomplishments, problems or delays. The status reports shall also report all total costs incurred to date, with specific reference to the cost incurred since the previous status report.

C.5.1.2 Final technical report: The Contractor shall prepare a draft final report in accordance with CDRL data item A002 and deliver to the COTR in 22 months after the contract award. The COTR will review the draft final report and return it to the contractor within 30 days of receipt of draft with comments. The Contractor shall submit one (1) final "Scientific and Technical Report" within thirty (30) days after the receipt of the draft comments and will include the comments in the final report.

C.5.1.3 Software: The Contractor shall deliver software, in accordance with the CDRL data item A003. It shall consist of a CD-ROM, which will include a full working copy of all software required to operate the prototype inspection system.

C.5.1.4 Presentation material: The Contractor shall deliver presentation materials in accordance with the CDRL data item A004.

C.5.2 Prototype Inspection System: At the time of the final program review meeting, the Contractor shall deliver a complete prototype inspection system to the Government, in the configuration demonstrated in the final program review meeting. If the demonstrated system is acceptable to the Government's Contracting Officer's Technical Representative (COTR), the Contractor may choose to effect delivery by leaving the inspection system at TARDEC after it is demonstrated. The Contractor shall disassemble and pack the system for shipping/storage, if so requested by the COTR.

C.6 Meetings: The Contractor shall support and attend meetings as follows:

C.6.1 Start of work meeting: No later than 60 days after contract award, the Contractor shall attend a start of work meeting at TARDEC.

C.6.2 First year review: Approximately 12 months after contract award the Contractor shall attend a first year program review meeting at TARDEC.

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C.6.3 Final program review: No later than the contract end date, the Contractor shall attend a final program review meeting to be held at TARDEC. The demonstration specified in section C.4 shall take place at this meeting.

*** END OF NARRATIVE C 001 ***

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SECTION D - PACKAGING AND MARKING

D.1: Packaging and packing

The Contractor shall package all items deliverable under this contract in accordance with standard commercial practice to assure arrival at destination without damage or loss.

D.2: Software marking

The Contractor shall mark all software delivered under this contract with the software title, TACOM contract number, the name and address of the prime contractor, and the name and address of the subcontractor (if any) which generated the software.

The marking will be in format below for the applicable prime and subcontractor generated software:

Software Title:
TACOM contract number
Prime contractor's name
Prime contractor's address

TACOM contract number
Prime contractor's name
Prime contractor's address
TACOM contract number
Sub-contractor's name
Sub-contractor's address

D.3: Material and hardware marking:

The Contractor shall mark or tag all materials and hardware delivered under this contract with the following information:

TACOM contract number
Contractor's name
Contractor's address
A description of the material or hardware (e.g. Ground vehicle track shoe component)

*** END OF NARRATIVE D 001 ***

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SECTION E - INSPECTION AND ACCEPTANCE

	<u>Regulatory Cite</u>	<u>Title</u>	<u>Date</u>
E-1	52.246-9	INSPECTION OF RESEARCH AND DEVELOPMENT (SHORT FORM)	APR/1984

E.1 Inspection and acceptance: The Contracting Officer's Technical Representative (COTR) is responsible for inspecting and accepting or rejecting all hardware, software and reports submitted by the contractor to the government, at destination, in accordance with the terms of the contract.

*** END OF NARRATIVE E 001 ***

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SECTION F - DELIVERIES OR PERFORMANCE

	<u>Regulatory Cite</u>	<u>Title</u>	<u>Date</u>
F-1	52.242-15	STOP WORK ORDER--(ALTERNATE I dated APR 1984)	AUG/1989
F-2	52.247-34	F.O.B. DESTINATION	NOV/1991

F.1 Deliverables:

F.1.1 All deliverables requiring submission in a physical medium, shall be shipped FOB destination to the following address:

USA TACOM
Attn: Dr. Basavaraju Raju
AMSTA-TR-D, Mail Stop 255
6501 E. 11 Mile Road
Warren, MI 48397-5000

F.1.2 The following shall be delivered in accordance with the Contract Data Requirements List (CDRL), form DD 1423, exhibit A to this contract:

F.1.2.1 Data item A001: Contractor Progress, Status and Management Report. The first report shall be due three months after contract award. Subsequent reports shall be sent quarterly.

F.1.2.2 Data item A002: Scientific and Technical Report (Final). The final Scientific and Technical Report shall be due by the contract end date. A draft of this report shall be due 60 days prior to the contract end date.

F.1.2.3. Data item A003: Software. The Contractor shall deliver all software, with licenses, required to operate the inspection machine. Reference section C.5.1.3. The software shall be delivered concurrently with the delivery of the prototype inspection system (reference F.1.4.1).

F.1.2.4 Data item A004: Presentation Material. The Contractor shall submit presentation materials in accordance with section C.5.1.4.

F.1.3 The Contractor shall submit two reports in accordance with the clause "Patents - Reporting Of Subject Inventions" as follows:

F.1.3.1 An interim Report of Inventions and Subcontracts (form DD-882) shall be submitted twelve months after contract award.

F.1.3.2 A final Report of Inventions and Subcontracts(form DD-882)shall be submitted within three months of the acceptance of the final Scientific and Technical Report (data item A002).

F.1.4 Prototype Inspection System:

F.1.4.1 At the time of the final program review meeting, the Contractor shall deliver to the Government a complete prototype inspection system. Reference section C.5.2.

F.2 Period of Performance:

The period of performance for this contract is 24 months, from 3 DEC 2003 through 2 DEC 2005. The contract end date is 2 DEC 2005. The second 12 months of performance shall be authorized by the Contracting Officer when sufficient funding has been obligated to cover the second 12 months of performance.

*** END OF NARRATIVE F 001 ***

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SECTION G - CONTRACT ADMINISTRATION DATA

LINE	PRON/ AMS CD/ <u>ITEM</u> <u>MIPR</u>	OBLG <u>ACRN</u> <u>STAT</u>	<u>ACCOUNTING CLASSIFICATION</u>	JOB <u>ORDER</u>	<u>ACCOUNTING</u> <u>STATION</u>	<u>OBLIGATED</u> <u>AMOUNT</u>
000101	E142C008EH	AA 2	21 42040000046N6N7EP665502255Y S20113	42C008	W56HZV \$	369,995.00
	665502M4055					
					TOTAL \$	369,995.00

SERVICE <u>NAME</u>	<u>TOTAL BY ACRN</u>	<u>ACCOUNTING CLASSIFICATION</u>	<u>ACCOUNTING</u> <u>STATION</u>	<u>OBLIGATED</u> <u>AMOUNT</u>
Army	AA	21 42040000046N6N7EP665502255Y S20113	W56HZV	\$ 369,995.00
			TOTAL	\$ 369,995.00

<u>Regulatory Cite</u>	<u>Title</u>	<u>Date</u>
G-1	52.242-4016 COMMUNICATIONS	
	(TACOM)	MAY/2000

(a) Communications on technical matters pertaining to the contract shall be direct between the contractor and the Technical Representative. Communications for the Technical Representative shall be addressed to:

Name: Dr. Basavaraju Raju
e-mail: basavaraju.raju@us.army.mil

(b) The Administrative Contracting Officer's (ACO) name and email address are also provided if known at this time:

ACO: Thomas Reilly
e-mail: thomas.reilly@dcma.mil

(c) Please see the appointment letters prepared at time of contract award for functions the Technical Representative and ACO will perform on this contract.

[End of Clause]

G-2	252.201-7000	CONTRACTING OFFICER'S REPRESENTATIVE	DEC/1991
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(a) Definition. Contracting Officer's Representative means an individual designated in accordance with subsection 201.602-2 of the Defense Federal Acquisition Regulation Supplement and authorized in writing by the contracting officer to perform specific technical or administrative functions.

(b) If the Contracting Officer designates a contracting officer's representative (COR), the Contractor will receive a copy of the written designation. It will specify the extent of the COR's authority to act on behalf of the contracting officer. The COR is not authorized to make any commitments or changes that will affect price, quality, quantity, delivery, or any other term or condition of the contract.

[End of Clause]

G-3	52.227-4004	RELEASE OF INFORMATION	OCT/2003
	(TACOM)		

The contractor shall ensure that he complies with the requirements of Chapter 5, page 22, paragraph 5-48, of AR 360-1, The Army Public Affairs Program, dated 15 Oct 2000, prior to contemplated release of any procurement information. Approval of the Contracting Officer is required prior to release of any such information. AR 360-1 may be found at http://www.usapa.army.mil/pdffiles/r360_1.pdf .

[End of clause]

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G-4	52.232-4005	INVOICE INFORMATION REQUIREMENT	JAN/1988
	(TACOM)		

On each payment request submitted, the Contractor shall identify each affected Contract Line Item Number (CLIN), sub-CLIN, and/or work directive, together with the related dollar amounts. This requirement does not diminish or restrict any other requirement of this contract.

* * G.1 CONTRACTOR: SPECIAL BILLING INSTRUCTIONS: * *

G.1.1 The Contractor shall bill to the six-digit Sub-Line Item Number (SLIN) level and ACRN under the four-digit Contract Line Item Number (CLIN), for which the work effort was performed. See Section B,

G.1.2 If multiple SLINs exist on the same four-digit major CLIN, the Contractor shall determine which six-digit SLIN contains the oldest fiscal year money and invoice against the SLIN containing the oldest money, until fully billed.

G.1.3. On this contract, SLIN 000101 is FY2004 money.

* * G.2 DFAS: SPECIAL PAYMENT INSTRUCTIONS: * *

G.2.1 DFAS will make payments as billed by the contractor.

*** END OF NARRATIVE G 001 ***

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SECTION H - SPECIAL CONTRACT REQUIREMENTS

	Regulatory Cite	Title	Date
H-1	252.205-7000	PROVISION OF INFORMATION TO COOPERATIVE AGREEMENT HOLDERS	DEC/1991
H-2	252.225-7001	BUY AMERICAN ACT AND BALANCE OF PAYMENTS PROGRAM	APR/2003
H-3	252.225-7002	QUALIFYING COUNTRY SOURCES AS SUBCONTRACTORS	APR/2003
H-4	252.225-7004	REPORTING OF CONTRACT PERFORMANCE OUTSIDE THE UNITED STATES	APR/2003
H-5	252.225-7009	DUTY-FREE-ENTRY--QUALIFYING COUNTRY SUPPLIES (END PRODUCTS AND COMPONENTS)	AUG/2000
H-6	252.225-7013	DUTY-FREE ENTRY	APR/2003
H-7	252.227-7036	DECLARATION OF TECHNICAL DATA CONFORMITY	JAN/1997
H-8	252.227-7037	VALIDATION OF RESTRICTIVE MARKINGS ON TECHNICAL DATA	SEP/1999
H-9	252.231-7000	SUPPLEMENTAL COST PRINCIPLES	DEC/1991
H-10	252.235-7011	FINAL SCIENTIFIC OR TECHNICAL REPORT	SEP/1999
H-11	252.246-7000	MATERIAL INSPECTION AND RECEIVING REPORT	MAR/2003
H-12	252.246-7001	WARRANTY OF DATA	DEC/1991
H-13	252.227-7039	PATENTS -- REPORTING OF SUBJECT INVENTIONS	APR/1990

The Contractor shall furnish the Contracting Officer the following:

(a) Interim reports every twelve (12) months (or such longer period as may be specified by the Contracting Officer) from the date of the contract, listing subject inventions during that period and stating that all subject inventions have been disclosed or that there are no such inventions.

(b) A final report, within three (3) months after completion of the contracted work, listing all subject inventions or stating that there were no such inventions.

(c) Upon request, the filing date, serial number and title, a copy of the patent application and patent number, and issue data for any subject invention for which the Contractor has retained title.

(d) Upon request, the Contractor shall furnish the Government an irrevocable power to inspect and make copies of the patent application file.

(End of clause)

H-14	52.204-4005 (TACOM)	REQUIRED USE OF ELECTRONIC CONTRACTING	DEC/2002
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(a) All contract awards, modifications and delivery orders issued by TACOM will be issued electronically. The contractor has the option to receive these actions either via the Worldwide Web (WWW) or Electronic Data Interchange (EDI). Many provisions and clauses appear "by reference," meaning only clause titles and regulation site are listed; their full texts can be found at the website <http://farsite.hill.af.mil/>

(b) In order to be eligible to receive an award under this solicitation, the successful offeror must be registered with the Department of Defense (DOD) Central Contractor Registration (CCR). The CCR registration process may be done electronically at the World Wide Web (WWW) site: <http://www.ccr.gov/>. (In order to be registered to use EDI, you must use the long form for registration. Certification information, including information on the EDI 838 TPP, must be furnished to the Contracting Officer within 60 calendar days after contract award to complete networking requirements within the Government.)

(c) Worldwide Web Distribution. The contractor will receive an electronic Notice of the Award, Modification, or Delivery Order via e-mail. If you choose the WWW option, you must download the file from the appropriate TACOM webpage:

Warren: http://contracting.tacom.army.mil/awards_official.htm
Rock Island: <http://aais.ria.army.mil/AAIS/AWDINFO/index.htm>
Picatinny: <http://procnnet.pica.army.mil/Contracts/Index.htm>
Red River Army Depot: <http://www.redriver.army.mil/contracting/Awards>
Anniston Army Depot: <http://www.anadprocnnet.army.mil>

(d) Electronic Data Interchange. If you choose to receive contract awards, modifications and delivery orders through EDI, they will be delivered electronically via the Federal Acquisition Network (FACNET). Federal Standard Version 3050 of Standard X12 from the American National Standards Institute (ANSI) will be used as the format for these electronic transactions.

(1) You must complete the EDI 838 Trading Partner Profile, and must agree (i) to subcontract with a DoD certified VAN or Value Added Service (VAS) provider, or (ii) to become DoD certified as a Value Added Network (VAN). The EDI 838 Training Partner

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Profile is contained in the basic CCR registration form and includes portions of the registration form which are titled "Optional".

(2) You must select a VAN from the official DoD approved list. DoD Certified VANs are listed at <http://www.acq.osd.mil/ec/ecip/index.htm> . If your VAN is later removed from the official list, or if you voluntarily drop your initially selected VAN, then you must switch to a VAN that remains on the official DoD approved list. You must maintain an active account on a DoD approved VAN for the entire duration of the contract, beginning no later than the 60th day after award.

(e) Unless otherwise specified elsewhere in the contract, all data items you are required to provide under this contract must be submitted electronically. Acceptable formats include:

(1) Microsoft* 97 Office Products (TACOM can currently read OFFICE 97* and lower.): Word, Excel, Powerpoint, or Access

(2) 100 OR 250 MEGABYTE ZIP*-DISK, 3 1/2 INCH DISK, OR 650 MEGABYTE CD ROM

(3) E-MAIL (Maximum size of each e-mail message is be three and one-half (3.5) megabytes).

(4) Other electronic formats. Before submitting your data in any other electronic format, please e-mail the buyer identified on the face of the contract, with e-mail copy-furnished to amsta-idq@tacom.army.mil, to obtain a decision as to the format's acceptability. This e-mail must be received by the buyer not later than ten calendar days before the required data submission date.

NOTE: The above formats may be submitted in compressed form using self-extracting files.

(f) Additional information can be obtained by sending a message to: acqcenweb@tacom.army.mil or by calling (586) 574-7059.
[End of Clause]

H-15	52.216-4008	STATUS OF FUNDS ON COST REIMBURSEMENT CONTRACTS/CLINS	JUN/1989
	(TACOM)		

(a) The Contractor shall review the funding as it relates to work performed on the cost-reimbursement Contract Line Item Numbers (CLINs) under this contract and shall provide to the Procuring Contracting Officer (PCO) a written determination of what, if any, funds are excess to requirements (leaving a reasonable amount for final overhead rate negotiations and other reasonably predicted requirements) and are available for deobligation. This review shall be coordinated with the Administrative Contracting Officer (ACO), and the written determination shall be accomplished within 120 days of completion of performance under the CLIN. The report shall be prepared in terms of dollars available per Purchase Request Order Number (PRON), unless requested otherwise by the PCO.

(b) This report may be requested in writing by the PCO on additional occasions during the course of performance of work on cost-reimbursable CLINS contained in this contract. On such occasions, the written report shall be provided to the PCO within 14 days of Contractor receipt of the written request.

(End of clause)

H-16	52.246-4026	LOCAL ADDRESSES FOR DD FORM 250	MAR/2002
	(TACOM)		

(a) The contractor must provide a copy of each Material Inspection and Receiving Report (DD 250) pertaining to this contract, to the addresses given below, using either of the following methods:

(1) Our first preference is for you to use electronic mail (e-mail), using the following e-mail address:

DD250@tacom.army.mil

(2) Our second preference is for you to use data facsimile (datafax) transmission, using this fax number:

(586) 574-7552 and use "DD250 mailbox" in the "to:" block of your fax cover or header sheet.

In either method, do not mix DD250s from more than one contract in a single transmmission. That is, you may submit multiple DD250s in a single transmission, but they must all be against the same contract.

(b) These copies meet the requirements for the Purchasing Office copy and the Army Inventory Control Manager copy listed in tables 1 and 2 of DFARS Appendix F.

(c) The DD250 form may be found, in three different formats, on the World Wide Web at <http://webl.whs.osd.mil/icdhome/DD-0999.htm>

[End of Clause]

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SECTION I - CONTRACT CLAUSES

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address: <http://farsite.hill.af.mil/>

[End of Clause]

	<u>Regulatory Cite</u>	<u>Title</u>	<u>Date</u>
I-1	52.202-1	DEFINITIONS	DEC/2001
I-2	52.203-3	GRATUITIES	APR/1984
I-3	52.203-5	COVENANT AGAINST CONTINGENT FEES	APR/1984
I-4	52.203-6	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT	JUL/1995
I-5	52.203-7	ANTI-KICKBACK PROCEDURES	JUL/1995
I-6	52.203-8	CANCELLATION, RESCISSION AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY	JAN/1997
I-7	52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY	JAN/1997
I-8	52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS	JUN/2003
I-9	52.204-4	PRINTING/COPYING DOUBLE-SIDED ON RECYCLED PAPER	AUG/2000
I-10	52.209-6	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT	JUL/1995
I-11	52.211-5	MATERIAL REQUIREMENTS	AUG/2000
I-12	52.211-15	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS	SEP/1990
I-13	52.215-2	AUDIT AND RECORDS - NEGOTIATIONS	JUN/1999
I-14	52.215-8	ORDER OF PRECEDENCE--UNIFORM CONTRACT FORMAT	OCT/1997
I-15	52.215-10	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA	OCT/1997
I-16	52.215-12	SUBCONTRACTOR COST OR PRICING DATA	OCT/1997
I-17	52.215-15	PENSION ADJUSTMENTS AND ASSET REVERSIONS	DEC/1998
I-18	52.215-17	WAIVER OF FACILITIES CAPITAL COST OF MONEY	OCT/1997
I-19	52.215-18	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS	OCT/1997
I-20	52.215-19	NOTIFICATION OF OWNERSHIP CHANGES	OCT/1997
I-21	52.216-7	ALLOWABLE COST AND PAYMENT	DEC/2002
I-22	52.216-8	FIXED FEE	MAR/1997
I-23	52.219-6	NOTICE OF TOTAL SMALL BUSINESS SET-ASIDE	JUN/2003
I-24	52.219-8	UTILIZATION OF SMALL BUSINESS CONCERNS	OCT/2000
I-25	52.219-14	LIMITATIONS ON SUBCONTRACTING	DEC/1996
I-26	52.222-1	NOTICE TO THE GOVERNMENT OF LABOR DISPUTES	FEB/1997
I-27	52.222-19	CHILD LABOR--COOPERATION WITH AUTHORITIES AND REMEDIES	SEP/2002
I-28	52.222-20	WALSH-HEALEY PUBLIC CONTRACTS ACT	DEC/1996
I-29	52.222-21	PROHIBITION OF SEGREGATED FACILITIES	FEB/1999
I-30	52.222-26	EQUAL OPPORTUNITY	APR/2002
I-31	52.222-35	AFFIRMATIVE ACTION FOR DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA	DEC/2001
I-32	52.222-36	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES	JUN/1998
I-33	52.222-37	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS	DEC/2001
I-34	52.223-6	DRUG FREE WORKPLACE	MAY/2001
I-35	52.223-14	TOXIC CHEMICAL RELEASE REPORTING	AUG/2003
I-36	52.225-13	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES	JUN/2003
I-37	52.227-1	AUTHORIZATION AND CONSENT (ALTERNATE I dated April 1984)	JUL/1995
I-38	52.227-2	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT	AUG/1996
I-39	52.227-11	PATENT RIGHTS--RETENTION BY THE CONTRACTOR (SHORT FORM)	JUN/1997
I-40	52.228-7	INSURANCE--LIABILITY TO THIRD PERSONS	MAR/1996
I-41	52.229-3	FEDERAL, STATE, AND LOCAL TAXES	APR/2003
I-42	52.232-9	LIMITATION ON WITHHOLDING OF PAYMENTS	APR/1984
I-43	52.232-17	INTEREST	JUN/1996
I-44	52.232-22	LIMITATION OF FUNDS	APR/1984
I-45	52.232-23	ASSIGNMENT OF CLAIMS	JAN/1986
I-46	52.232-25	PROMPT PAYMENT	FEB/2002
I-47	52.232-33	PAYMENT BY ELECTRONIC FUNDS TRANSFER--CENTRAL CONTRACTOR REGISTRATION	OCT/2003
I-48	52.233-1	DISPUTES	JUL/2002
I-49	52.233-3	PROTEST AFTER AWARD -- (ALTERNATE I, dated JUN 1985)	AUG/1996
I-50	52.242-1	NOTICE OF INTENT TO DISALLOW COSTS	APR/1984

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	Regulatory Cite	Title	Date
I-51	52.242-3	PENALTIES FOR UNALLOWABLE COSTS	MAY/2001
I-52	52.242-4	CERTIFICATION OF INDIRECT COSTS	JAN/1997
I-53	52.242-13	BANKRUPTCY	JUL/1995
I-54	52.243-2	CHANGES--COST-REIMBURSEMENT (ALTERNATE V, dated April 1984))	AUG/1987
I-55	52.244-2	SUBCONTRACTS (ALT I--AUG 1998)	AUG/1998
I-56	52.244-5	COMPETITION IN SUBCONTRACTING	DEC/1996
I-57	52.245-5	GOVERNMENT PROPERTY (COST-REIMBURSEMENT, TIME-AND-MATERIAL, OR LABOR- HOUR CONTRACTS) (Deviation, per DAR Tracking Number 99-00008, 13 July 99)	JUN/2003
I-58	52.246-24	LIMITATION OF LIABILITY--HIGH-VALUE ITEMS	FEB/1997
I-59	52.246-25	LIMITATION OF LIABILITY--SERVICES	FEB/1997
I-60	52.247-1	COMMERCIAL BILL OF LADING NOTATIONS the notation set forth in paragraph (a) of the clause applies in this contract.` The agency name in line one of the notation shall read:US ARMY TANK-AUTOMOTIVE & ARMAMENTS COMMAND	APR/1984
I-61	52.249-6	TERMINATION (COST-REIMBURSEMENT)	SEP/1996
I-62	52.249-14	EXCUSABLE DELAYS	APR/1984
I-63	52.253-1	COMPUTER GENERATED FORMS	JAN/1991
I-64	252.203-7001	PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE CONTRACT- RELATED FELONIES	MAR/1999
I-65	252.204-7003	CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT	APR/1992
I-66	252.209-7000	ACQUISITION FROM SUBCONTRACTORS SUBJECT TO ON-SITE INSPECTION UNDER THE INTERMEDIATE-RANGE NUCLEAR FORCES (INF) TREATY	NOV/1995
I-67	252.209-7004	SUBCONTRACTING WITH FIRMS THAT ARE OWNED OR CONTROLLED BY THE GOVERNMENT OF A TERRORIST COUNTRY per DoD interim rule, Federal Register 27 Mar 98	MAR/1998
I-68	252.215-7000	PRICING ADJUSTMENTS	DEC/1991
I-69	252.215-7002	COST ESTIMATING SYSTEM REQUIREMENTS	OCT/1998
I-70	252.225-7004	REPORTING OF CONTRACT PERFORMANCE OUTSIDE THE UNITED STATES	APR/2003
I-71	252.225-7012	PREFERENCE FOR CERTAIN DOMESTIC COMMODITIES	FEB/2003
I-72	252.225-7014	PREFERENCE FOR DOMESTIC SPECIALTY METALS	APR/2003
I-73	252.225-7016	RESTRICTION ON ACQUISITION OF BALL AND ROLLER BEARINGS	APR/2003
I-74	252.225-7031	SECONDARY ARAB BOYCOTT OF ISRAEL	APR/2003
I-75	252.227-7016	RIGHTS IN BID OR PROPOSAL INFORMATION	JUN/1995
I-76	252.227-7017	IDENTIFICATION AND ASSERTION OF USE, RELEASE, OR DISCLOSURE RESTRICTIONS	JUN/1995
I-77	252.227-7018	RIGHTS IN NONCOMMERCIAL TECHNICAL DATA AND COMPUTER SOFTWARE-- SMALL BUSINESS INNOVATIVE RESEARCH (SBIR) PROGRAM	JUN/1995
I-78	252.227-7019	VALIDATION OF ASSERTED RESTRICTIONS--COMPUTER SOFTWARE	JUN/1995
I-79	252.227-7030	TECHNICAL DATA--WITHHOLDING OF PAYMENT	MAR/2000
I-80	252.227-7034	PATENTS--SUBCONTRACTS	APR/1984
I-81	252.243-7002	REQUESTS FOR EQUITABLE ADJUSTMENT	MAR/1998
I-82	252.244-7000	SUBCONTRACTS FOR COMMERCIAL ITEMS AND COMMERCIAL COMPONENTS (DoD CONTRACTS)	MAR/2000

- I-83 52.222-2 PAYMENT FOR OVERTIME PREMIUMS JUL/1990
- (a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed zero or the overtime premium is paid for work--
- (1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdown of production equipment, or occasional production bottlenecks of a sporadic nature;
 - (2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;
 - (3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or
 - (4) That will result in lower overall costs to the Government.
- (b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall--
- (1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;
 - (2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;

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(3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and

(4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

(End of clause)

I-84 52.223-11 OZONE-DEPLETING SUBSTANCES MAY/2001

(a) Definition. Ozone-depleting substance, as used in this clause, means any substance the Environmental Protection Agency designates in 40 CFR part 82 as--

(1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or

(2) Class II, including but not limited to, hydrochlorofluorocarbons.

(b) The Contractor shall label products which contain or are manufactured with ozone-depleting substances in the manner and to the extent required by 42 U.S.C. 7671j(b), (c), and (d) and 40 CFR Part 82, Subpart E, as follows:

WARNING: Contains (or manufactured with, if applicable) _____ * _____, a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere.

*The Contractor shall insert the name of the substance(s).

[End of Clause]

I-85 52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS AND COMMERCIAL COMPONENTS APR/2003

(a) Definitions. As used in this clause--

(1) "Commercial item," as used in this clause, has the meaning contained in the clause at 52.202-1, Definitions.

(2) "Subcontract," as used in this clause, includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c)

(1) The contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.219-8, Utilization of Small Business Concerns (OCT 2000)(15U.S.C. 637(d)(2) and (3)), in all subcontracts that offer subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$500,000 (\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (APR 2002)(E.O. 11246);

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Dec 2001) (38 U.S.C. 4212(a));

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998)(29 U.S.C. 793);

(v) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (APR 2003) (46 U.S.C. Appx 1241 and 10 U.S.C. 2631) (flow down required in accordance with paragraph (d) of FAR clause 52.247-64).

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimum number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

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[End of Clause]

I-86 52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES APR/1984

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of (DEVIATION) after the date of the clause.

(b) The use in this solicitation or contract of any DoD FAR Supplement (DFARS) (48 CFR 2) clause with an authorized deviation is indicated by the addition of (DEVIATION) after the name of the regulation.

[End of Clause]

I-87 252.204-7004 REQUIRED CENTRAL CONTRACTOR REGISTRATION NOV/2001

(a) Definitions. As used in this clause--

(1) Central Contractor Registration (CCR) database means the primary DoD repository for contractor information required for the conduct of business with DoD.

(2) Data Universal Numbering System (DUNS) number means the 9-digit number assigned by Dun and Bradstreet Information Services to identify unique business entities.

(3) Data Universal Numbering System +4 (DUNS+4) number means the DUNS number assigned by Dun and Bradstreet plus a 4-digit suffix that may be assigned by a parent (controlling) business concern. This 4-digit suffix may be assigned at the discretion of the parent business concern for such purposes as identifying subunits or affiliates of the parent business concern.

(4) Registered in the CCR database means that all mandatory information, including the DUNS number or the DUNS+4 number, if applicable, and the corresponding Commercial and Government Entity (CAGE) code, is in the CCR database; the DUNS number and the CAGE code have been validated; and all edits have been successfully completed.

(b)

(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee must be registered in the CCR database prior to award, during performance, and through final payment of any contract resulting from this solicitation, except for awards to foreign vendors for work to be performed outside the United States.

(2) The offeror shall provide its DUNS or, if applicable, its DUNS+4 number with its offer, which will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.

(3) Lack of registration in the CCR database will make an offeror ineligible for award.

(4) DoD has established a goal of registering an applicant in the CCR database within 48 hours after receipt of a complete and accurate application via the Internet. However, registration of an applicant submitting an application through a method other than the Internet may take up to 30 days. Therefore, offerors that are not registered should consider applying for registration immediately upon receipt of this solicitation.

(c) The Contractor is responsible for the accuracy and completeness of the data within the CCR, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to confirm on an annual basis that its information in the CCR database is accurate and complete.

(d) Offerors and contractors may obtain information on registration and annual confirmation requirements by calling 1-888-227-2423, or via the Internet at <http://www.ccr.gov>.

[End of Clause]

I-88 252.247-7023 TRANSPORTATION OF SUPPLIES BY SEA MAY/2002

(a) Definitions. As used in this clause--

(1) Components means articles, materials, and supplies incorporated directly into end products at any level of manufacture, fabrication, or assembly by the Contractor or any subcontractor.

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(2) Department of Defense (DoD) means the Army, Navy, Air Force, Marine Corps, and defense agencies.

(3) Foreign flag vessel means any vessel that is not a U.S.-flag vessel.

(4) Ocean transportation means any transportation aboard a ship, vessel, boat, barge, or ferry through international waters.

(5) Subcontractor means a supplier, materialman, distributor, or vendor at any level below the prime contractor whose contractual obligation to perform results from, or is conditioned upon, award of the prime contract and who is performing any part of the work or other requirement of the prime contract. However, effective May 1, 1996, the term does not include a supplier, materialman, distributor, or vendor of commercial items or commercial components.

(6) Supplies means all property, except land and interests in land, that is clearly identifiable for eventual use by or owned by the DoD at the time of transportation by sea.

(i) An item is clearly identifiable for eventual use by the DoD if, for example, the contract documentation contains a reference to a DoD contract number or a military destination.

(ii) Supplies includes (but is not limited to) public works; buildings and facilities; ships; floating equipment and vessels of every character, type, and description, with parts, subassemblies, accessories, and equipment; machine tools; material; equipment; stores of all kinds; end items; construction materials; and components of the foregoing.

(7) U.S.-flag vessel means a vessel of the United States or belonging to the United States, including any vessel registered or having national status under the laws of the United States.

(b)

(1) The Contractor shall use U.S.-flag vessels when transporting any supplies by sea under this contract.

(2) A subcontractor transporting supplies by sea under this contract shall use U.S.-flag vessels if-

(i) This contract is a construction contract; or

(ii) The supplies being transported are-

(A) Noncommercial items; or

(B) Commercial items that-

(1) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it subcontracts for f.o.b. destination shipment);

(2) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(3) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(c) The Contractor and its subcontractors may request that the Contracting Officer authorize shipment in foreign-flag vessels, or designate available U.S.-flag vessels, if the Contractor or a subcontractor believes that--

(1) U.S.-flag vessels are not available for timely shipment;

(2) The freight charges are inordinately excessive or unreasonable; or

(3) Freight charges are higher than charges to private persons for transportation of like goods.

(d) The Contractor must submit any request for use of other than U.S.-flag vessels in writing to the Contracting Officer at least 45 days prior to the sailing date necessary to meet its delivery schedules. The Contracting Officer will process requests submitted after such date(s) as expeditiously as possible, but the Contracting Officer's failure to grant approvals to meet the shipper's sailing date will not of itself constitute a compensable delay under this or any other clause of this contract. Requests shall contain at a minimum--

(1) Type, weight, and cube of cargo;

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(2) Required shipping date;

(3) Special handling and discharge requirements;

(4) Loading and discharge points;

(5) Name of shipper and consignee;

(6) Prime contract number; and

(7) A documented description of efforts made to secure U.S.-flag vessels, including points of contact (with names and telephone numbers) with at least two U.S.-flag carriers contacted. Copies of telephone notes, telegraphic and facsimile message or letters will be sufficient for this purpose.

(e) The Contractor shall, within 30 days after each shipment covered by this clause, provide the Contracting Officer and the Division of National Cargo, Office of Market Development, Maritime Administration, U.S. Department of Transportation, Washington, DC 20590, one copy of the rated on board vessel operating carrier's ocean bill of lading, which shall contain the following information--

(1) Prime contract number;

(2) Name of vessel;

(3) Vessel flag of registry;

(4) Date of loading;

(5) Port of loading;

(6) Port of final discharge;

(7) Description of commodity;

(8) Gross weight in pounds and cubic feet if available;

(9) Total ocean freight in U.S. dollars; and

(10) Name of the steamship company.

(f) The Contractor shall provide with its final invoice under this contract a representation that to the best of its knowledge and belief--

(1) No ocean transportation was used in the performance of this contract;

(2) Ocean transportation was used and only U.S.-flag vessels were used for all ocean shipments under the contract;

(3) Ocean transportation was used, and the Contractor had the written consent of the Contracting Officer for all non-U.S.-flag ocean transportation; or

(4) Ocean transportation was used and some or all of the shipments were made on non-U.S.-flag vessels without the written consent of the Contracting Officer. The Contractor shall describe these shipments in the following format:

ITEM DESCRIPTION	CONTRACT LINE ITEMS	QUANTITY	TOTAL
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(g) If the final invoice does not include the required representation, the Government will reject and return it to the Contractor as an improper invoice for the purposes of the Prompt Payment clause of this contract. In the event there has been unauthorized use of non-U.S.-flag vessels in the performance of this contract, the Contracting Officer is entitled to equitably adjust the contract, based on the unauthorized use.

(h) In the award of subcontracts for the types of supplies described in paragraph (b)(2) of this clause, the Contractor shall flow down the requirements of this clause as follows:

(1) The Contractor shall insert the substance of this clause, including this paragraph (h) in all subcontracts that exceed the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation.

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(2) The Contractor shall insert the substance of paragraphs (a) through (e) of this clause, and this paragraph (h), in subcontracts that are at or below the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation.

[End of Clause]

I-89 252.247-7024 NOTIFICATION OF TRANSPORTATION OF SUPPLIES BY SEA MAR/2000

(a) The Contractor has indicated by the response to the solicitation provision, Representation of Extent of Transportation by Sea, that it did not anticipate transporting by sea any supplies. If however, after the award of this contract, the Contractor learns that supplies, as defined in the Transportation of Supplies by Sea clause of this contract, will be transported by sea, the Contractor--

(1) Shall notify the Contracting Officer of that fact; and

(2) Hereby agrees to comply with all the terms and conditions of the Transportation of Supplies by Sea clause of this contract.

(b) The Contractor shall include this clause, including this paragraph (b), revised as necessary to reflect the relationship of the contracting parties

(1) In all subcontracts hereunder, if this contract is a construction contract; or

(2) If this contract is not a construction contract, in all subcontracts under this contract that are for--

(i) Noncommercial items; or

(ii) Commercial items that--

(A) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it subcontracts for f.o.b. destination shipment);

(B) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(C) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

[End of Clause]

I-90 52.204-4009 MANDATORY USE OF CONTRACTOR TO GOVERNMENT ELECTRONIC COMMUNICATION JUN/1999
(TACOM)

(a) All references in the contract to the submission of written documentation shall mean electronic submission. All electronic submissions shall be in the formats and media described in the "Electronic Quotations/Offers/Bids Required in Response to this Request for Quotations/Proposals/Bids" clause elsewhere in this document. (See Section K for commercial acquisitions, Section L for RFPs, and Section I for RFQs.)

(b) This shall include all written unclassified communications between the Government and the Contractor except contract awards and contract modifications which shall be posted on the internet. Return receipt shall be used if a commercial application is available. Classified information shall be handled in full accordance with the appropriate security requirements.

(c) In order to be contractually binding, all Government communications requiring a Contracting Officer signature must be sent from the Contracting Officer's e-mail address. The Contractor shall designate the personnel with signature authority who can contractually bind the contractor. All binding contractor communication shall be sent from this contractor e-mail address(es).

(d) Upon award, the Contractor shall provide the Contracting Officer with a list of e-mail addresses for all administrative and technical personnel assigned to this contract.

(e) Unless exempted by the Procuring Contracting Officer in writing, all unclassified written communication after contract award shall be transmitted electronically.

[End of Clause]

SECTION J - LIST OF ATTACHMENTS

<u>List of Addenda</u>	<u>Title</u>	<u>Date</u>	<u>Number of Pages</u>	<u>Transmitted By</u>
Exhibit A	CONTRACT DATA REQUIREMENTS LIST	01-OCT-2003	002	EMAIL
Attachment 001	DI-MGMT-80227	05-NOV-2003	002	EMAIL
Attachment 002	DI-MISC-80711A	05-NOV-2003	001	EMAIL
Attachment 003	DI-MCCR-80700	05-NOV-2003	001	EMAIL
Attachment 004	DI-ADMN-81373	05-NOV-2003	001	EMAIL